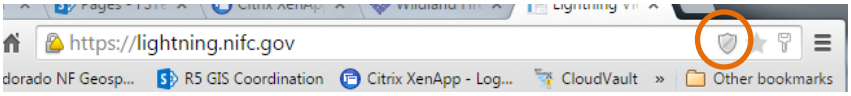
Lightning Map Work Flow

24 April 2015

Log In to WFMI

- https://www.nifc.blm.gov/cgi/WfmiHome.cgi
- Logon
- I Agree
- WFMI Logon – put in your username & password
- Continue
- Continue
- Choose Lightning
- Log in to the Lightning Application using your WFMI username and password.
- To get Federal Lands layers to work, choose from the following instructions for your browser
    - IE: -- "show all content"

    - Chrome: Choose the Shield icon to the RIGHT of the URL and "Load unsafe scripts"

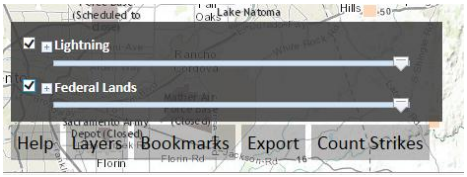


    - Firefox: Choose the Shield icon to the LEFT of the URL and under Insecure Content select "Options" → "Disable protection for now"
    - Safari: Should work with no changes
    - Opera: Choose the Stop icon to the RIGHT of the URL and select "Unblock"

Turn on Federal Lands

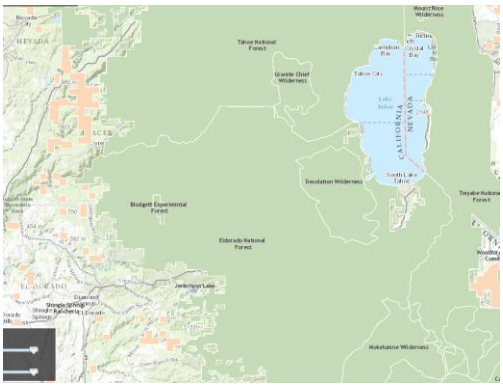
- In lower left hand corner of the map window, click on Layers

- Add check mark to box to the left of the Federal Lands listing
  IMPORTANT NOTE FOR FOREST SERVICE: the data used is PROCLAIMED BOUNDARY and NOT Administrative Boundary so boundaries shown may not be familiar to you. (example: Lake Tahoe Basin Management Unit NOT shown)

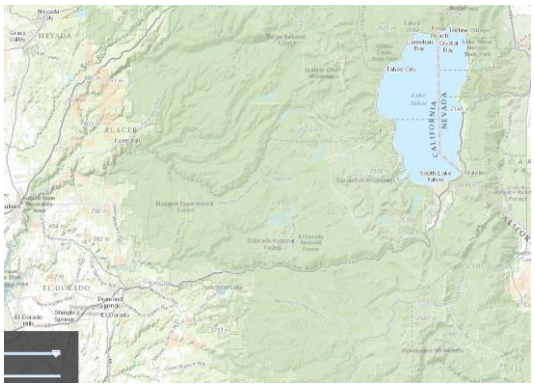


- Set transparency by sliding the small triangle located on the right end of the bar, to the left, to the position and transparency you want.

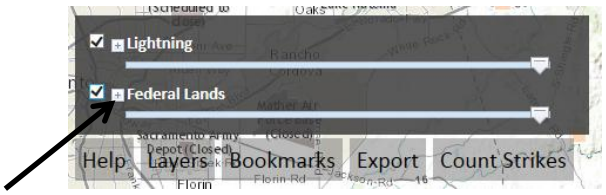
Before

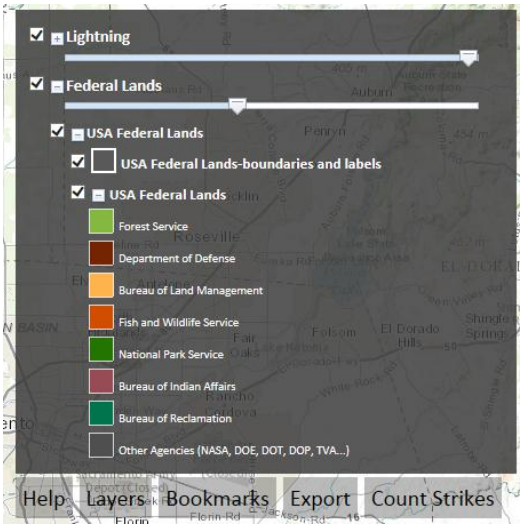


After



- To see the legend for Federal Lands, click on the **+** sign next to the Federal Lands Check Box

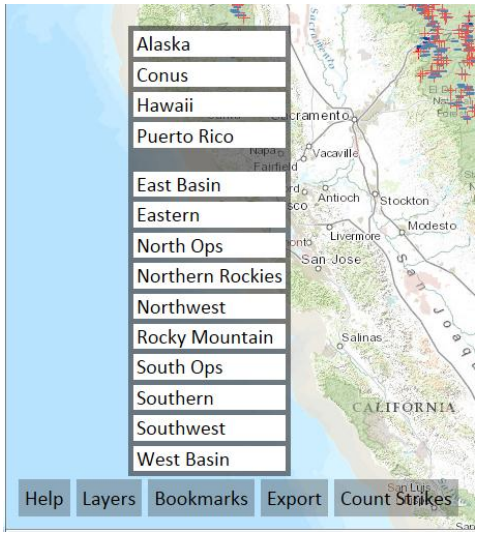




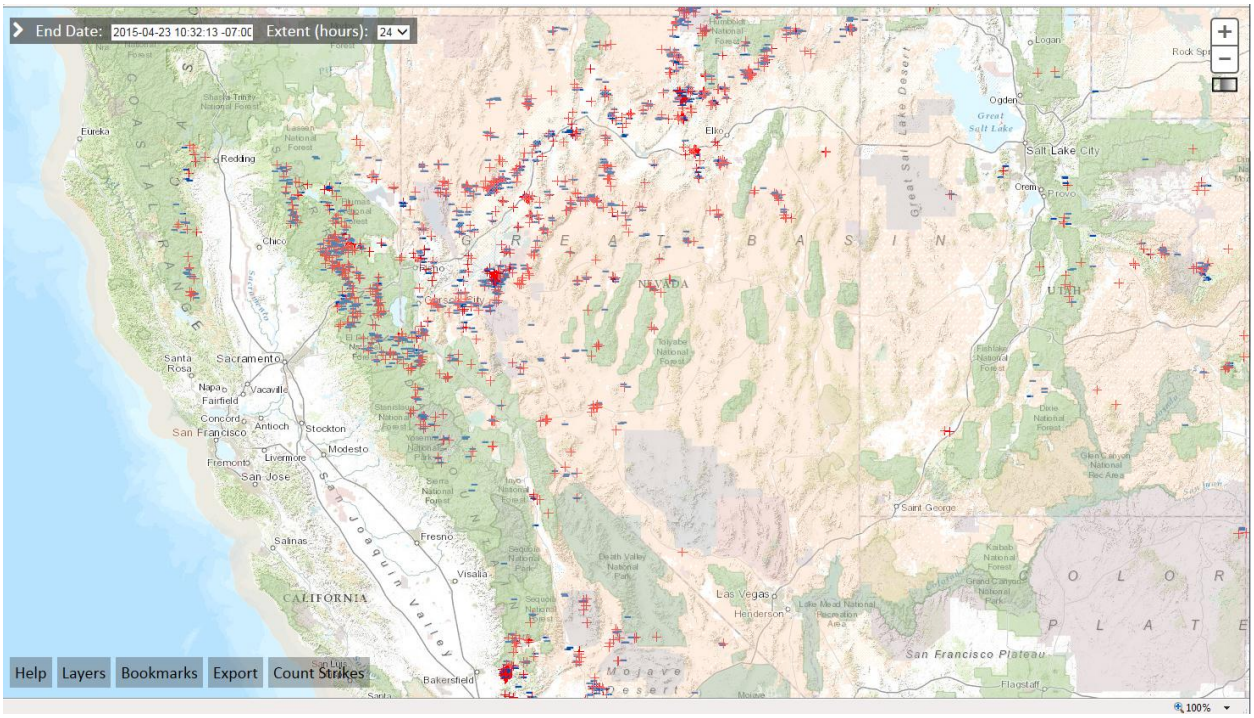
Bookmarks

Bookmarks were created for the different Geographic Areas of the U.S.

- Click on Bookmarks in the lower right corner, and choose the Geographic Area you are interested in.

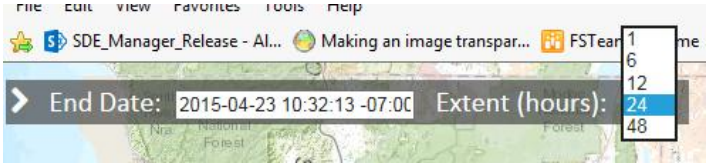


West Basin shown as example



Choose End Date/Extent (hours)

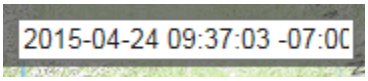
- Click on drop down arrow next to Extent (hours), to choose hours. Even if you want the Default 12 hours, still have to choose a different hour and go to the next step. Initial view does NOT always show strikes.



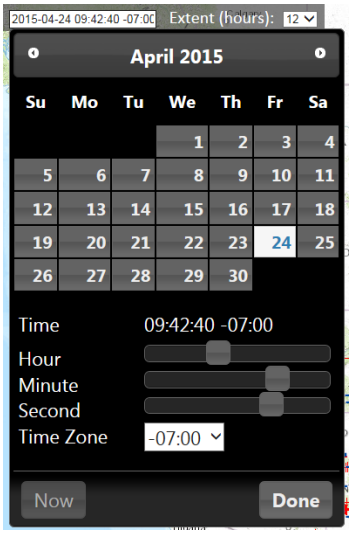
- Click on Refresh icon to the right of the new chosen time. Only way to see strikes is to choose the hours and then refresh. Initial view does NOT always show strikes.

- Processing bar located under +/- icon on upper right.

- To set the End Date, click on the date/time

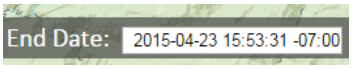


- Set the Hour, Minute, Second and Time Zone. Click Done when finished. Or click Now.



Not sure what to set for Time Zone hours, go here: http://wwp.greenwichmeantime.com/time-zone/usa/

- **NOTE: The time shown on the map screen, shows local time. If you export the data it will show UTC. This can create confusion.**



Time_
201504232104
201504232122
201504232126

Screen captures show local time of the 3 strikes, the exported data shows 7 hours later.

Pan/Zoom

- Zoom
  - Click on +/- icons in the upper right

  - Scroll wheel works funky in IE: Only zooms in, not out. Beware. Works great in Chrome. Don't know about the other browsers.
  - Zoom in with rubber-band: **shift + left-mouse-button** (works in Chrome but not IE)
  - Zoom out with rubber-band: **ctrl + shift + left-mouse-button** (works in Chrome but not IE)
- Pan
  - Click in map, hold down left mouse button and move mouse.

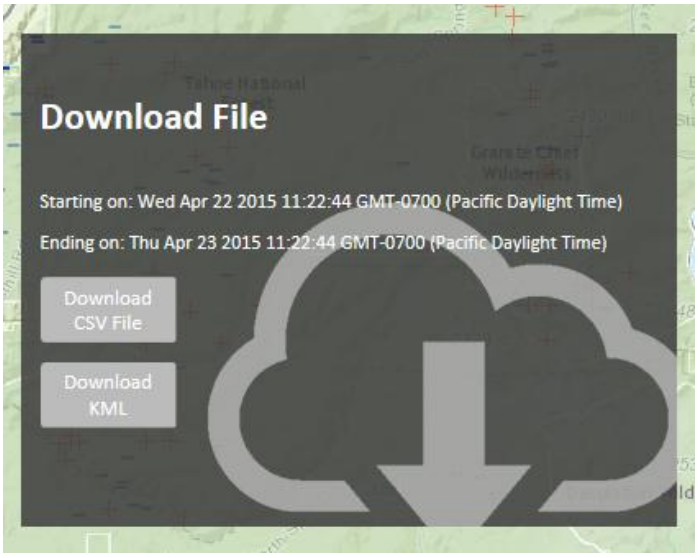
Count Strikes

- Click on Count Strikes in lower left corner. Only shows what is in current extent of the map.

Export Data

- Click on Export in the lower left corner.

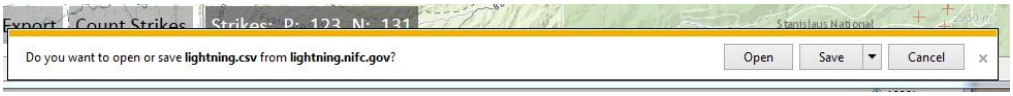
- Window pops up in the middle of the map.



- Click on either:
  - Download CSV File (Comma delimited file)

- Download KML

- Save to file, on your computer, rename as needed. Example shown is with IE browser.



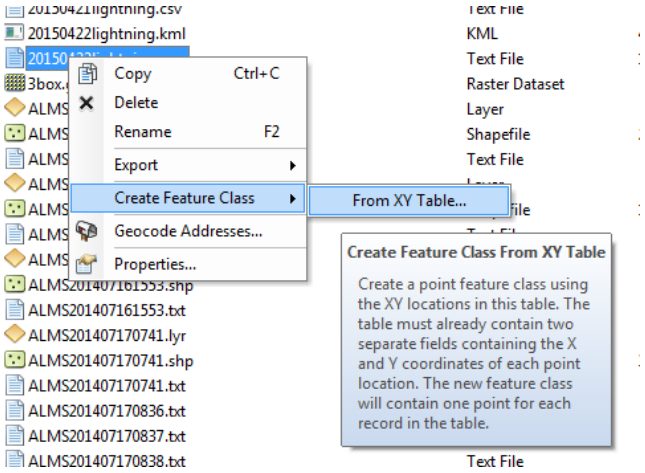
- Data exported is only what is seen in the current map extent.

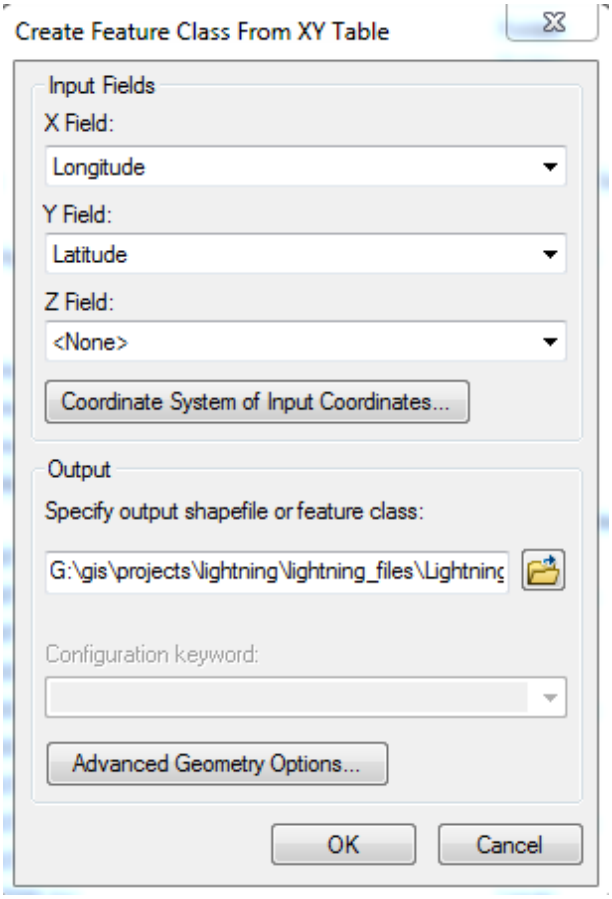
Use Data in ArcGIS

Using ArcCatalog and ArcMap.

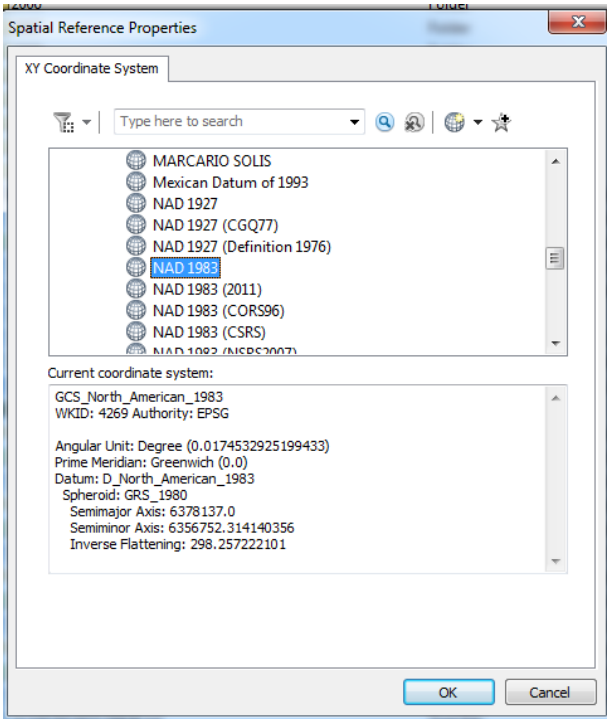
CSV File – Create in GCS NAD83

- Create feature class from CSV file.
  - In ArcCatalog, right click on downloaded .csv file and choose Create Feature Class → From XY Table.

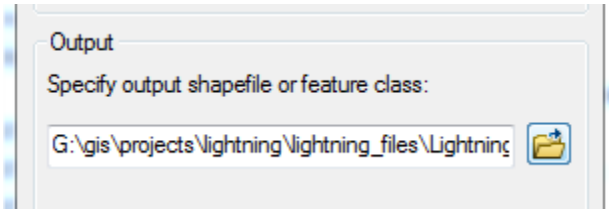


- 

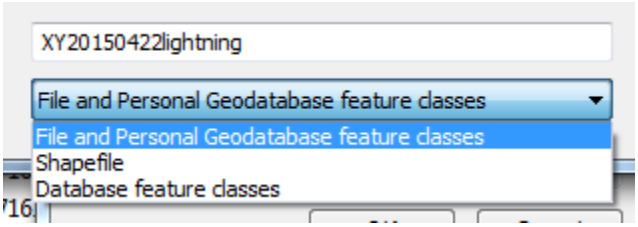
- Click on Coordinate System of Input Coordinates and choose a Geographic Coordinate System then click OK – example used is GCS-North America-NAD1983



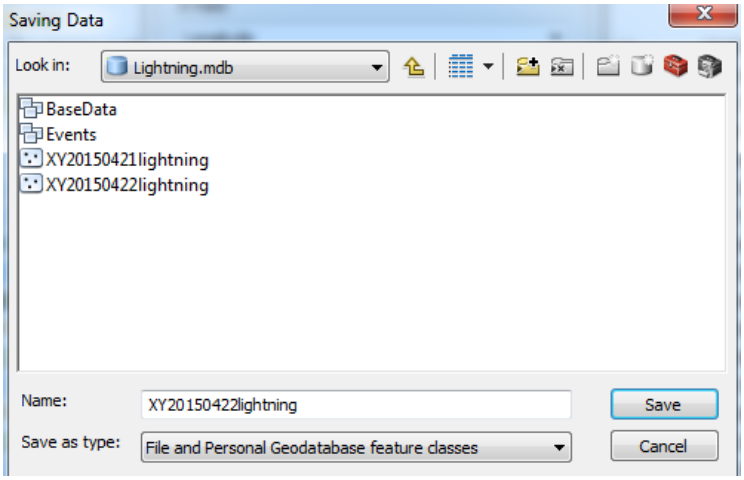
- Click on File Browser button to the right under Output section.



- Choices for Save as Type are:



- Give the new file a name



- Click Save
- Click OK
- Add new feature class to ArcMap

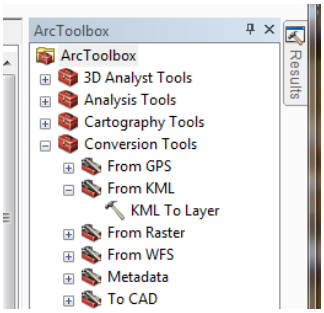
- **NOTE: The time shown on the map screen, shows local time. If you export the data it will show UTC. This can create confusion.**

Screen captures show local time of the 3 strikes, the exported data shows 7 hours later.

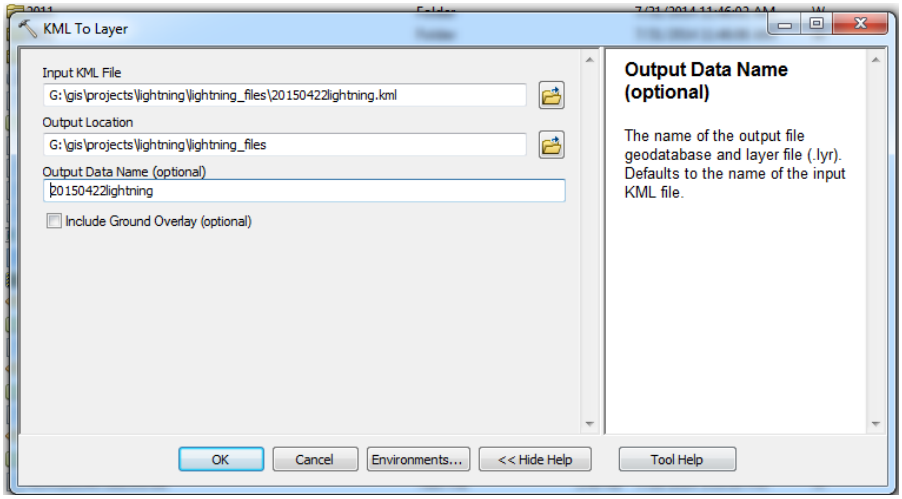
KML File – Creates in GCS WGS84

- Create feature class from KML File
  - In ArcCatalog, turn on ArcToolbox

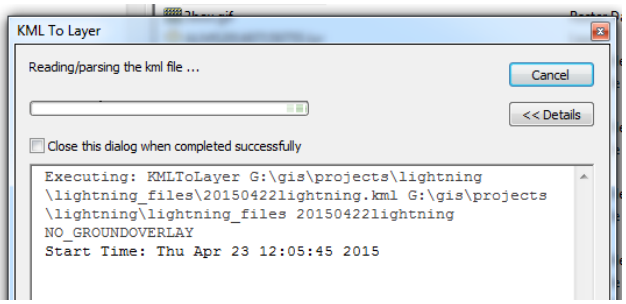
- Browse to Conversion Tools → From KML → KML to Layer



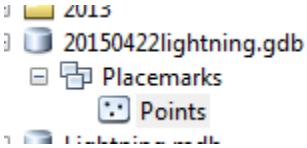
- Double-click KML to Layer
- Browse to location of KML file and add to Input KML File
- Browse to location where you want the output feature class to be located (default is same location as the KML file).
- Optional output name



- Click OK



- An ArcGIS file geodatabase is created. Add the Points feature class to ArcMap.



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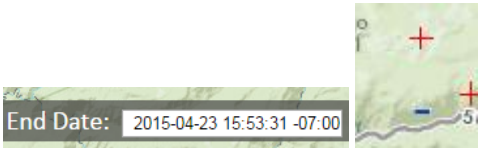

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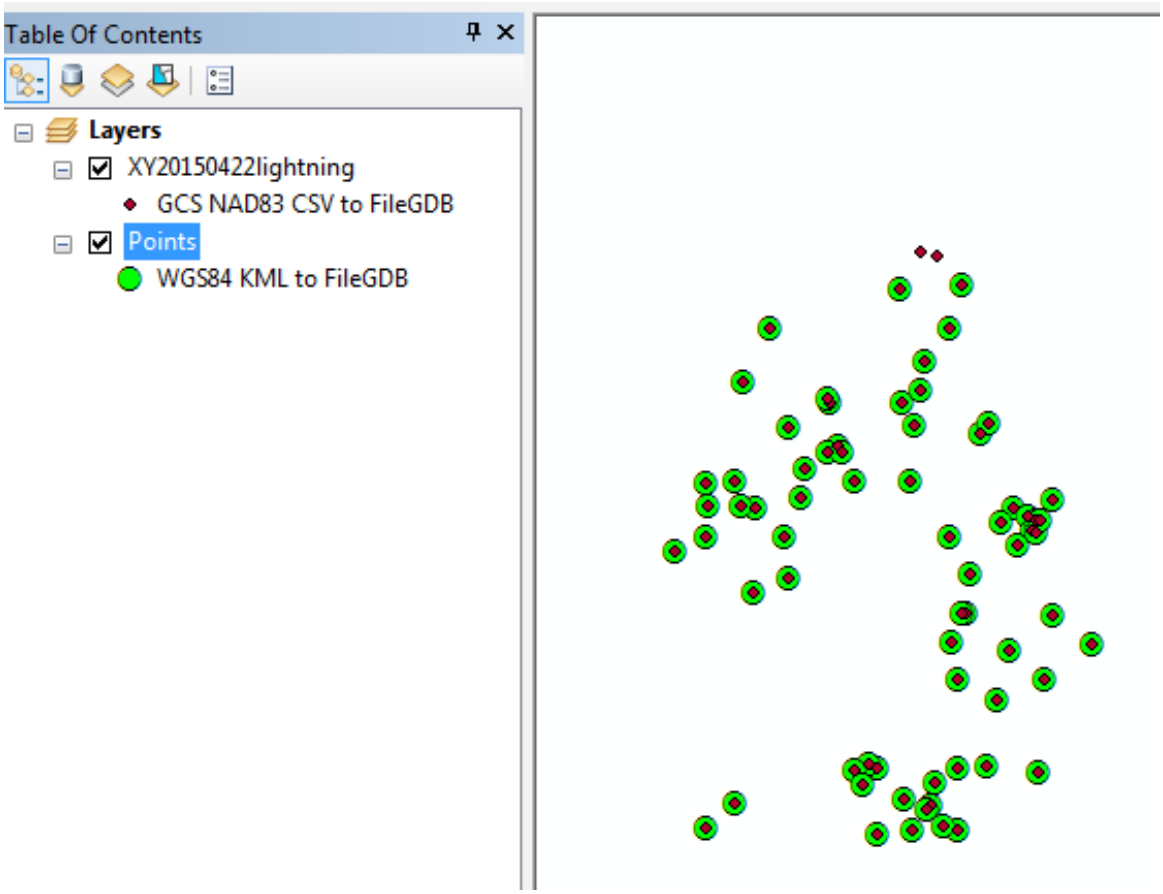

Identified Issues

- Seeing data
    - Both IE and Chrome, the lightning strike data goes away. As many times as you try and refresh they won't draw.
        - Some fixes: Reboot (worked every time); Add nifc.gov to the Compatibility View Settings
- In IE, scroll wheel does not work correctly for zooming in and out.
- In IE, zoom with rubber band does not work.
- USDA Forest Service data shown with PROCLAIMED BOUNDARY and **NOT Administrative Boundary**, so some units may be "missing" (example Lake Tahoe Basin Management Unit).
- Export as CSV (Comma separated) file which then has to be converted to a shapefile or geodatabase.
    - When converting you can set geographic coordinate system to NAD83
- Export as KML file, which if you want to use in ArcGIS, must be converted to a geodatabase.
    - When converting it will be set to geographic coordinate system WGS84.
- You can set Local Time to show within the application but when you export the data, the time is in UTC.